

Claim 13 has been amended to correct claim dependency, as it incorrectly depends from claim 12 which is for Incoloy 903. Since this claim is to a different alloy, Incoloy 907, it should correctly depend from claim 1. The claim has been so amended.

Claim 21 has been added. Support for claim 21 may be found in the specification as originally filed in Paragraph 24.

Paragraph 21 has been amended to correct the term "wrought casting." Because an item cannot be both a "casting" and wrought," the term has been amended indicate "wrought portion", which is the portion that is machined. Support for this can be found at paragraph 20 of the specification and in paragraph 9. Language from claim 8 regarding preselected periods as originally filed and included in the claim has been incorporated into the specification as indicated. Support for this change is claim 8 as originally filed. The preferred periods are claimed in claim 9.

Paragraph 22 has been amended to correct the term "wrought casting." Because an item cannot be both a "casting" and wrought," the term has been amended indicate "wrought portion", which is the portion that is machined. Support for this can be found at paragraph 20 of the specification and in paragraph 9. Language from claim 14 regarding preselected periods as originally filed and included in the claim has been incorporated into the specification as indicated. Support for this change is claim 14 as originally filed. The preferred periods are claimed in claim 15.

Paragraph 23 has been amended to correct the term "wrought casting." Because an item cannot be both a "casting" and wrought," the term has been amended indicate "wrought portion", which is the portion that is machined. Support for this can be found at paragraph 20 of the specification and in paragraph 9. Language from claim 17 regarding preselected periods as originally filed and included in the claim has been incorporated into the specification as indicated. Support for this change is claim 17 as originally filed. The preferred periods are claimed in claim 18. The preferred heat treatment has been removed, as two of the temperatures are incorrect falling outside the broad range of temperatures listed in this paragraph and as

claimed. The low aging at the high end of the 1100-1225°F range for one hour has been retained.

Paragraph 24 has been amended to incorporate language from claim 11 regarding preselected periods as originally filed and included in the claim into the specification as indicated. In addition, the term "wrought casting" has been amended to correct the term, as an item cannot be both a "casting" and wrought." The term has been amended indicate "wrought portion", which is the portion that is machined. Support for this can be found at paragraph 20 of the specification and in paragraph 9.

Paragraph 25 has been amended to correct the term "wrought casting." Because an item cannot be both a "casting" and wrought," the term has been amended indicate "wrought portion", which is the portion that is machined. Support for this can be found at paragraph 20 of the specification and in paragraph 9. Language from claim 5 regarding preselected periods as originally filed and included in the claim has been incorporated into the specification as indicated. Support for this change is claim 5 as originally filed. The preferred periods are claimed in claim 6.

CONCLUSION

Please enter this amendment into the presently filed case. Applicants respectfully submit that no new matter is introduced into the specification as a result of this amendment. The changes to the specification fall into two classes, as noted above. to correct obvious errors to the specification; or to incorporate subject matter from the claims as originally filed into the specification. No new matter is introduced into the specification. Amendments to the claims are to correct errors to claim dependency.

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The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to Deposit Account No. 50-1059.

Respectfully submitted,
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Attached: Marked-Up Version of Amended Claims
Marked-Up Copy of the Amended Specification

MARKED-UP COPY OF THE AMENDED CLAIMS

11. (Amended) The process as in claim [7] 10, wherein the process includes heat treating at a temperature in the range of about 1500°F to about 1600°F and holding for a first preselected period, followed by lowering the temperature to a temperature in the range of about 1250°F to about 1350°F and holding for a second preselected period, followed by lowering the temperature to a temperature in the range of about 1100°F to about 1200°F and holding for a third preselected period, so as to develop γ' and γ'' , while also relieving welding stresses in the welded article after the step of welding the wrought article to the cast article.

13. (Amended) The process as in claim [12] 1, wherein the process includes welding the treated cast Inconel 718 article to a wrought Incoloy 907 article after the cooling step, to yield a repaired article.



MARKED-UP COPY OF THE AMENDED SPECIFICATION

Please amend the specification as follows:

[0021] After the cast Inconel 718 component has been solutioned within the temperature range of about 1950°F to about 2150°F and the initial wrought [casting] portion has been machined away, a new wrought portion can then be attached to the casting. When the article includes a cast Inconel 718 component welded to either a wrought Waspaloy component or a wrought Rene-41 component, after the components are welded together, in order to relieve weld stresses and to properly age the article, the article should be heat treated in the range of about 1500°F to about 1600°F for a first preselected period, about one hour, followed by a heat treatment in the range of about 1250°F to about 1350°F for a second preselected period, about eight hours, followed by a heat treatment in the range of about 1150°F to about 1250°F for a third preselected period, about one hour. In a more preferred embodiment, in order to relieve welding stress and to age the article, the article should be heat treated at about 1550°F ± 25°F for about one hour, followed by a heat treatment at about 1325°F ± 25°F for about eight hours, followed by a heat treatment at about 1200°F ± 25°F for about one hour.

[0022] After the cast Inconel 718 component has been solutioned within the temperature range of about 1950°F to about 2150°F and the initial wrought [casting] portion has been machined away, a new wrought component can then be attached to the casting. When the article is a cast Inconel 718 component welded to a Inconel 907 wrought component, after the components are welded together, in order to relieve weld stresses and to age the article, the article should be heat treated in the range of about 1500°F to about 1600°F for a first preselected period, about one hour, followed by a heat treatment in the range of about 1400°F to about 1525°F for a second preselected period, about sixteen hours, followed by a heat treatment in the range of about 1100°F to about 1200°F for a third preselected period, about eight hours. In a more preferred embodiment, in order to relieve welding stress and to age the article, the article should be heat treated at about 1550°F ± 25°F for about one hour, followed by a heat treatment at about 1475°F ± 25°F for about sixteen hours, followed by a heat treatment at about 1150°F ± 25°F for about eight hours.

[0023] After the cast Inconel 718 component has been solutioned within the temperature range of about 1950°F to about 2150°F and the initial wrought [casting] portion has been machined away, a new wrought component can then be attached to the casting. When the article is a cast Inconel 718 component welded to a wrought Inconel 909 component, after the components are welded together, in order to relieve weld stresses and to age the article, the article should be heat treated in the range of about 1500°F to about 1600°F for a first preselected time period, about one hour, followed by a heat treatment in the range of about 1350°F to about 1450°F for a second preselected time period, about eight hours, followed by a heat treatment in the range of about 1100°F to about 1225°F for a third preselected time period, about four hours. The third preselected time period may be reduced to one hour, if desired when the temperature is at the upper end of the range, that is [In a more preferred embodiment, in order to relieve welding stress and to age the article, the article should be heat treated at about 1425°F ± 25°F for about eight hours, followed by a heat treatment at about 1150°F ± 25°F for about four hours, followed by a heat treatment] at about 1200°F ± 25°F for about one hour.

[0024] After the cast Inconel 718 component has been solutioned within the temperature range of about 1950°F to about 2150°F and the initial wrought [casting] portion has been machined away, a new wrought component can then be attached to the casting. When the article is a cast Inconel 718 component welded to a wrought Inconel 903 component, after the components are welded together, in order to relieve weld stresses and to age the article, the article should be heat treated in the range of about 1500°F to about 1600°F for a first preselected period, about one hour, followed by a heat treatment in the range of about 1250°F to about 1350°F for a second preselected period, about eight hours, followed by a heat treatment in the range of about 1100°F to about 1200°F and holding for a third preselected period so as to develop γ' and γ'' while also relieving welding stresses. In one embodiment, the third preselected period may be eight hours. In a more preferred embodiment, in order to relieve welding stress and to age the article, the article should be heat treated at about 1550°F ± 25°F for about one hour, followed by a heat treatment at about 1325°F ± 25°F for about eight hours, followed by a heat treatment at about 1200°F ± 25°F for about one hour.

[0025] After the cast Inconel 718 component has been solutioned within the temperature range of about 1950°F to about 2150°F and the initial wrought [casting] portion has been machined away, a new wrought compound can then be attached to the casting. When the article is a cast Inconel 718 component welded to a wrought Inconel 718 component, after the components are welded together, in order to relieve weld stresses and to age the article, the article should be heat treated in the range of about 1500°F to about 1600°F for a first preselected period, about one hour, followed by a heat treatment in the range of about 1350°F to about 1450°F for a second preselected period, about eight hours, followed by a heat treatment in the range of about 1100°F to about 1200°F for a third preselected period, about four hours. In a more preferred embodiment, in order to relieve welding stress and to age the article, the article should be heat treated at about 1550°F \pm 25°F for about one hour, followed by a heat treatment at about 1425°F \pm 25°F for about eight hours, followed by a heat treatment at about 1150°F \pm 25°F for about four hours.